

ABSTRACT

HIGH FLUX X-RAY SOURCE

5 The present invention provides a high flux X-ray source 100 comprising a
sealed X-ray tube contained within an X-ray shield (101), an optic housing 103
containing a multi-layer optic for collecting and focussing X-rays generated in the
sealed X-ray tube, and an X-ray beam conditioner 104. The multi-layer optic 103 is
located at a predetermined distance from the sealed X-ray tube 101, with the optic
housing 103 being adjustable relative to the sealed X-ray tube 101 and the beam
10 conditioner 104 adjustable relative to the optic housing 103. The use of a multi-layer
optic provides for the efficient collection and focussing of X-rays generated in a
compact sealed tube and wavelength selectively enables it to act as a
monochromator, providing a beam of X-rays with a predetermined range of photon
energy.

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[Figure 1]